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|  | Summary  Accomplished and versatile software engineer and DevSecOps specialist with over 5 years of demonstrated success delivering full-lifecycle engineering solutions—from concept and architecture through deployment and training. Proven track record in leading complex migrations, architecting scalable platforms, building robust infrastructure, and creating intuitive user experiences. Adept at working across functional roles, technologies, and project phases with a strong emphasis on quality, performance, and maintainability.  Technical Skills  **Languages**: JavaScript, TypeScript, Python, Java, C#, Groovy  **Frameworks & Libraries:** React, Next.js, Solid.js, Node.js, Express.js, Unity WebGL  **DevOps & Tools:** GitLab CI, Jenkins, Docker, Maven, Ansible, Terraform, Packer, Redis, Celery, Elastic Monitoring  **Cloud & Hosting:** Azure, AWS  **Databases & Search:** MySQL, MongoDB, Elasticsearch, Logstash, Kibana, Amazon RDS, Firestore  **Auth & APIs:** RESTful APIs, GraphQL, JWT, OpenAPI, NextAuth, OAuth 2.0  **CAD/Modeling:** SolidWorks, AutoCAD, Autodesk, Bluebeam Revu  **Other:** Adobe Suite, TRIOS, FEA, ANSYS Fluent  Certifications  **Udacity | Cloud DevOps Using Microsoft Azure**  2025 *(Capstone Project Pending)*  Topics: CI/CD pipelines, infrastructure as code (Terraform, Packer), automated testing, cloud application deployment, Platform as a Service (PAS)  Experience  **Lockheed Martin** *Moorestown, NJ Developer | DevSecOps Engineer 2024–Present*  Operated at the intersection of DevOps, software development, and systems integration, serving as a lead contributor on multiple wide-scale initiatives. Played a pivotal role in modernizing infrastructure, improving CI/CD workflows, and transitioning mission-critical systems and processes from legacy to modern tooling. Acted in cross-functional roles including developer, infrastructure engineer, DevSecOps strategist, trainer, and project lead.  **Project:** Bitbucket to GitLab Enterprise Migration **Position:** Lead Developer, Migration Architect, Enablement Lead   * Orchestrated the transition of over 3000 repositories from Bitbucket to GitLab, spearheading the initiative from feasibility analysis to full deployment. * Created fully containerized test environments integrating Jira, GitLab, and Jenkins to validate cross-platform workflows before migration. * Authored a custom migration toolchain that automated repo transfers, Jenkins pipeline conversions, and credential handling, drastically reducing human effort and error. * Conducted market research and evaluation of available GitLab features and integration capabilities, including GitLab’s native Jira connectors. * Facilitated successful onboarding for 20+ development teams by delivering live training sessions, designing self-guided onboarding materials, and hosting Q&A workshops. * Centralized and versioned all CI/CD documentation on GitLab Pages to support self-service and reduce reliance on tribal knowledge. * Developed and deployed CI templates and reusable pipeline modules in GitLab CI, which now serve as the foundation for container builds, code scans, and testing pipelines across multiple departments.   **Project:** DRIP (Duplicate Record Identification Program) **Position:** Lead Architect and Full-Stack Developer   * Designed and implemented DRIP, an ML-powered data quality platform that identifies potential duplicates across internal records using semantic comparison. * Built a performant frontend using Next.js and a standards-compliant backend using FastAPI, complete with interactive testing UI and OpenAPI schema definitions. * Engineered a modular data ingestion pipeline for extracting and transforming data from SQL databases, Jira, and Word files, optimizing them for Elasticsearch and LLM processing. * Integrated transformer-based LLMs (e.g., msmarco-MiniLM-L-12-v3, multi-qa-MiniLM-L6-cos-v1) via Eland to semantically compare indexed records in Elasticsearch. * Implemented background processing and job queuing using Celery and Redis, improving responsiveness and user experience during compute-intensive operations. * Used Logstash and Kibana for centralized logging, monitoring, and visualizing duplicate detection accuracy and data ingestion rates. * The DRIP platform was later leveraged to prototype an enterprise-wide Elastic Monitoring solution, significantly expanding its organizational value.   **Project:** Elastic Monitoring Solution for CI/CD Pipelines **Position:** Lead Integrator and Infrastructure Engineer   * Repurposed DRIP components to deploy a production-grade Elastic Stack cluster on the unclassified network. * Centralized CI/CD logs across multiple Jenkins nodes, providing unified visibility into the Martin Standard Pipeline. * Enabled real-time alerting, error tracing, and root cause diagnostics across build, test, and deployment stages. * Advocated for adoption of Elastic Monitoring at the enterprise level, demonstrating measurable gains in triaging efficiency and pipeline health reporting.   **Project:** Internal Search Engine **Position:** Lead Developer and Integrator   * Forked and customized SearxNG, an open-source meta search engine, to aggregate and rank results from internal data systems and Confluence. * Integrated internal APIs and custom plugins to make institutional knowledge and engineering resources easily discoverable across disparate tools. * Ensured authentication compliance and performance tuning for use within classified and unclassified networks.   **Project:** Auto-Documentation and Knowledge Continuity System **Position:** Automation Engineer   * Developed a GitLab CI workflow using LLMs and metadata introspection to generate high-quality README.md documentation for source code repositories. * Published results automatically to internal knowledge bases, reducing onboarding time and knowledge silos.   **Project:** Platform Upgrade - RHEL 6 to RHEL 8 Migration **Position:** Build Engineer   * Upgraded build infrastructure and Maven targets to ensure compatibility with RHEL 8, modernizing legacy software stacks. * Automated build configuration updates and system checks using Ansible, ensuring reliability and reproducibility across multiple dev environments. * Modularized builds to improve portability and isolate legacy dependencies for long-term maintainability.   **Lockheed Martin** *Moorestown, NJ Developer | Systems Engineer 2022–2024*   * Drafted detailed System Definitions and Configuration Definition Documents (CDDs) to capture component relationships, platform capabilities, and ship-specific configurations. * Produced AutoCAD schematics and 3D models to support physical and logical integration of hardware across naval platforms. * Participated in Technology Evaluation Groups (TEGs), contributing to research, evaluation, and documentation of new technologies for field deployment. * Transitioned from system-focused roles to in-house development of internal tools, reducing inefficiencies in manual engineering workflows.   **Project:** ECSEL 2.0 (Enhanced Combat System Ship Equipment List) **Position:** Lead Full-Stack Developer   * Re-architected a legacy shipboard inventory system into a scalable and responsive web platform using Next.js, Amazon RDS (MySQL), and NextAuth. * Designed a secure authentication and session management layer to protect controlled ship data and provide role-based access. * Developed real-time sync logic and data update workflows to ensure inventory accuracy during active ship configuration changes. * Improved system performance and usability, significantly reducing manual reconciliation and enabling up-to-date overviews of ship content for engineering and mission planning.   **Project:** AutoCAD Extractor Tool **Position:** Full-Stack Developer & CAD Automation Specialist   * Built an internal tool to extract component metadata from AutoCAD drawing files and convert it to editable Excel templates. * Enabled scalable extraction workflows for eningeering teams, saving hours per ship configuration.   **STF Technologies** *Newark, DE Research Engineer – Nuclear Rheology 2024–Present*   * Served as lead engineer developing cutting-edge instrumentation and techniques for measuring fluid viscosity and material properties under extreme conditions using neutron beamlines. Played a pivotal role in multiple R&D projects, managing everything from initial concept through prototyping, software integration, and final deployment. * Responsibilities spanned mechanical design, embedded systems, materials science, servo actuation, and scientific computing.   **Project:** High-Pressure, Low-Temperature Beamline Chamber **Position:** Lead Design Engineer   * Designed and fabricated a custom sample chamber capable of withstanding high pressure and cryogenic temperatures while being transparent to neutron beams. * Selected specialized metal alloys with optimal neutron scattering profiles and structural integrity. * Created 3D CAD models and FEA simulations to validate pressure thresholds and thermal behavior. * Collaborated with beamline scientists to ensure compatibility with neutron scattering instrumentation and safety protocols.   **Project:** Patent-Backed Interfacial Rheology System **Position:** R&D Engineer   * Acted as a key contributor across all project phases for the creation of a novel neutron-compatible rheology device **US Patent Application No. 63/349,961 – Neutron Reflectivity-Rheology Sample Environment**. * Conducted extensive market and prior-art research to ensure patent novelty and scientific value. * Selected and integrated critical components such as high-resolution servo motors, harmonic gearboxes, load cells, and precision bearings. * Developed motion control algorithms and LabVIEW-based control panels with synchronized Python scripting for automation and beamline integration. * Led prototyping and iterative testing phases, optimizing performance and refining form factor for experimental setups. * Partnered closely with university researchers and national lab staff to deploy the device in active beamline environments.   **Project:** Custom 90-Degree Low-Friction Gearbox for Rheometers **Position:** Mechanical Design Engineer   * Engineered a compact, low-friction, right-angle gearbox to expand the geometries available in rheological measurements. * Focused on minimizing backlash and parasitic torque to maintain instrument calibration and sensitivity. * Validated torque transmission efficiency and compatibility with TA Instruments rheometers.   **Project:** Advanced Materials Development – Spacesuit Layer Fabric **Position:** Materials Engineer   * Participated in material development for a layer used in spacesuit systems.   Other Experience  **Air Liquide** *Newport, DE Process Engineering Intern 2019–2020*   * Supported production of air separation systems for aerospace applications. * Improved manufacturing processes and tooling to increase throughput and quality.   **EDiS Company** *Wilmington, DE Project Management Intern 2019–2019*   * Assisted in the planning, coordination, and execution of two large-scale commercial construction projects. * Participated in contractor meetings, field walks, and budgeting for AstraZeneca and Beebe Hospital jobs.   Patents  **United States Application No. 63/349,961** *Neutron Reflectivity-Rheology Sample Environment for Investigating Materials at Air-Liquid and Liquid-Liquid Interfaces and Methods of Use Thereof*  Academic Projects  **Senior Design – Norwalt Design Inc.** *Newark, DE 2019–2020*   * Resolved UV heating issue in manufacturing by engineering a forced convection solution. * The design was adopted and deployed across multiple production facilities.   **Junior Design – Siemens** *Newark, DE 2018–2019*   * Created a computer vision system to detect faulty bottle caps using custom image processing logic. * Delivered a working prototype used for defect detection on production lines. |